Blue Ridge NC Trout Unlimited

October 2022 Newsletter

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You are receiving this newsletter either as a member or prospective member of the Blue Ridge Chapter of Trout Unlimited. If you do not wish to receive this newsletter, please respond by email to BRNCNews@gmail.com and let us know.

The newsletter this month is dedicated to leader and tippet, something that seems so simple but can be very complex and also expensive. We will try to take the mystery out of types and sizes and offer up some ways to save a lot of money.

PRESIDENT’S CORNER

Our fall chapter meetings and activities are in full swing. Our September chapter meeting started with a bang, lots of new faces and members, great presentation by Dave Everhart on tying flies that last and put fish on your hook.

We have a lot planned this fall from the fly fishing skills event to fly tying classes, stream clean, presentations and Christmas ornament fly tying contest with a social lined up at Fiddlin Fish in December. We look forward to getting together with many friends and new faces.

Robby Abou-Rizk

OCTOBER PROGRAM

When: Tuesday, October 18th, 6:00 PM
Zoom presentations starts at 6:30 PM
Where: Sixty Six Grill and Tap House, private room, 3440 Frontis St, Winston Salem
This will also be available on Zoom. The link will be emailed before the meeting.
Speaker: Hank Patterson - Comedian, Fly Fishing Guide, Cub Scout Dropout

We are pleased to host Hank Patterson on Zoom. Hank will share stories as well as his comedic view on fly fishing. His videos on fly fishing provide a different perspective on the sport and helps you understand not to take it so seriously.

QUOTE OF THE MONTH

“If you’re not tearing your labrum, you are not casting hard enough.” ........Hank Patterson

OCTOBER 18TH BUSINESS MEETING

The annual business meeting will be held at the October monthly meeting. Elections will be held for 2 board positions (3 year terms) and secretary (2 year term). We have the following members nominated Troy Machamer, Rick Conner and Jon Bowman. If anyone would like to nominate other members please send your nomination to our chapter email blueridgetuws@gmail.com.

UPDATE ON THE MITCHELL RIVER

They say a picture is worth a thousand words. This is what goes into the Mitchell on a rainy day (Sept 5th 2022).

The Mitchell River is still being impacted by heavy sediment. The Department of Water quality has been on the Mitchell to survey the sediment and start doing further examinations. We have sent letters to the property owners on the Mitchell asking them to do what they can to protect the Mitchell River. We are also writing letters to the Surry County commissioners asking them to do the same. Next we will start reaching out to our representatives to make them aware of the situation and ask for their help.

At this time we would like you to write letters to DWR and thank them for investigating the sediment causes in the Mitchell. You can write up your personal reasons why the
river is important to protect as a trout stream. The Mitchell River has been listed as outstanding resource water and thus should have its water quality as a trout stream protected. Also the usage as a trout stream should be protected. If the sediment keeps piling up we will lose the Mitchell as a trout stream. You can email your letters to:

**NC Department of Environmental Quality Division of Water Resources**
450 W. Hanes Mill Rd, Suite 300
Winston-Salem, NC 27105
Lon Snider lon.snider@ncdenr.gov
Jenny Graznak jenny.graznak@ncdenr.gov

**NC Department of Environmental Quality**
Elizabeth Biser
Secretary of NC Dept of Environmental Quality
217 Jones St.
Raleigh, NC 27603
Phone: 919-707-8622
Email: elizabeth.biser@ncdenr.gov

### UPCOMING EVENTS

**Fly Fishing Skills Review for all levels**
October 2, 2022, 1pm - 4pm
Bolton Park - 1590 Bolton St SW, Winston-Salem

During the afternoon, we will have the following sessions:
- Rod Setup - rod/reel, leader, and tippet
- Knot Tying
- Great Outdoor Provision will talk about how to prepare for cold weather fishing
- Orvis Greensboro will talk about trends and gadgets being used in fly fishing today
- Casting instruction followed by a distance casting contest and an accuracy casting contest with prizes for the top 3 in each contest. Please, bring your rod and reel for the casting instruction, so you can practice with your gear. We will have some rods/reels on hand you can borrow.
- Short line nymphing techniques
- Introduction to flies
- Gear swap/sell - bring any old gear or flies you may want to trade or sell.

**Fly Tying Classes**
At 9am on Wednesdays Project Healing Waters will host fly tying classes and at 6pm on Wednesday evenings Blue Ridge Trout Unlimited will host classes. The classes are free and all are welcome - from beginners to advanced. No need to sign up, just come join us. If you have specific questions about the evening classes, you can contact, Rusty Berrier at rustyberrier@outlook.com.

One of the flies featured at the class in September was the cicada. If you read my article on the Greene River, you'll have seen my comment about that fly. Even though it is a late May-early June hatch, our guide put one of those on in mid-July. The fish know when it’s a chunk of meat worth chasing and I had a big brown spot it from across the river. He came zooming across the river and came up horizontally to grab the cicada and continued to fly another six feet through the air. Most amazing bite I have ever seen. Another reason I don’t always match the hatch.

**Mitchell River Cleanup October 22nd**
Watch for further details.

### ARE YOU READY FOR DELAYED HARVEST?

Delayed harvest begins on October 1st. Make sure all of your gear is ready

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### TROUT IN THE CLASSROOM BEGINS

Trout in the classroom program is in full swing. We have 10 schools participating, some with multiple teachers. We delivered trout eggs on Sep 15,16, and 19th. We want to thank all the
volunteers and TIC coordinators Tom Jackson, and Tom Adams (TU State) for putting in all the work to make this season happen. We want to thank all the teachers for their participation in the program.

FLUOROCARBON VS. NYLON
by Bill Battles
Reprinted from www.flyfishamerica.com

“Monofilament” is a term of art used to describe extruded, single-strand fishing line made from a variety of different plastics. Monofilament leaders and tippets are now made from three distinctly different plastic materials: nylon, fluorocarbon and bioabsorbable polymer. Each material offers advantages and disadvantages compared to the others.

The amount of marketing drivel that has been published extolling the virtues of fluorocarbon monofilament over nylon is almost beyond belief. While some of it is undoubtedly true, most is based on the properties of the two materials and their theoretical differences, rather than practical experience in using them under a wide variety of fishing conditions. The purpose of this article is to bring fly anglers up to speed on just what those advantages and disadvantages really amount to in a “real world” setting.

Nylon and fluorocarbon (polyvinylidene fluoride, or PVDF) monofilament materials have been around for quite a while, but bioabsorbable polymer monofilament is brand new to the fishing industry. Bioabsorbable polymer monofilament was originally developed in the 1970s for use by the medical industry as “dissolving” stitches, and cost over $5.00 per yard at the time. Bioline, of Portland, Oregon (recently purchased by Denver-based Wright & McGill) started marketing bioabsorbable polymer monofilament fishing line in July, 2008, and the product line is being expanded to include fly-fishing leader and tippet material. If you’re wondering what the big deal is with bioabsorbable polymer monofilament, read on.

Environmental Impact
How many times have you lost a monofilament tippet—or an entire leader—or inadvertently dropped a piece of waste monofilament line into the water? If you’re like the rest of us, the answer is “lots.” Even if you religiously store used monofilament line in a Fishpond PIOpod and dispose of it properly in the trash, it’s still going to wind up back in the ecosystem—either in a landfill or dumped at sea.

First introduced by DuPont in 1939, millions of miles—perhaps tens of millions of miles—of nylon monofilament fishing line have been produced in the last 70 years, and every inch of it is still sitting out there somewhere in the ecosystem . . . and will be for at least the next 530 years. That’s right, whether buried underground or floating around in our rivers, lakes and oceans, nylon monofilament takes 600 years to biodegrade.

Why is this important? Each year, thousands of animals and countless boat propellers become entangled in discarded monofilament line. Shorebirds, bald eagles, sea turtles, and marine mammals can starve to death, lose limbs, or drown because of entanglement in monofilament fishing line. Since it’s usually clear or light in color, monofilament line is difficult for birds and mammals to see, making it easy for them to get wrapped up in the stuff. One in five manatees rescued between 1980 and 1999 were entangled in monofilament line, and God only knows how many others died before they could be rescued. In one study, 38% of green turtles that washed up dead in Florida had eaten monofilament line, and discarded or broken off monofilament fishing line has been identified as one of the leading causes of infant dolphin deaths. Even humans are affected—every year human divers drown as a result of entanglement in monofilament fishing line (usually the heavier commercial-fishing variety).

While it may be difficult to conceive of the havoc that millions of miles of discarded nylon monofilament line will cause over the next 530 years, one can only imagine what those consequences will be over the next 4,000 years. That’s how long it takes for fluorocarbon monofilament to biodegrade. For all practical purposes, fluorocarbon monofilament never biodegrades.

Bioline, on the other hand, fully biodegrades in just five years, and in the process breaks down to nothing more than a minimal quantity of carbon dioxide and water. If there’s a winner here, it’s not nylon or fluorocarbon. The five-year life span of Bioline still has the potential to cause harm, but it certainly pales in comparison to that of nylon and fluorocarbon monofilament.

Cost
Plain old nylon monofilament is the least expensive of the three monofilament leader and tippet materials, and the clear winner on this measure. Thirty- to 33-yard spools of nylon monofilament tippet material run from about $2.95 to $5.95, depending on the brand, diameter and where you buy it. The cost for a single knotless, tapered nylon leader falls into the same price range.

Knotless, tapered fluorocarbon leaders go for $5.99 to $9.99 each, while 30- to 33-yard spools of fluorocarbon tippet material are priced from $8.99 to $15.99.

Bioline tippet material sells for $9.99 in 30-yard spools, making it price competitive with fluorocarbon. Bioline does not yet offer knotless, tapered leaders, but they do make leader material for tying your own, priced at $8.99 per 30-yard spool. The good, the bad, and the brand new.

Specific Gravity
It’s been said that the most common reason why even half-smart trout reject a dry-fly offering is because they see the squiggly outline of the leader on the water’s surface. Makes sense to us. Why else would every fly shop be selling those little squeeze bottles of “leader sink” that work for a while before they wash off? It sure would be nice if leaders and tippets sank all by themselves.

The density of a material, compared to that of water, is expressed as its specific gravity. To keep things simple, whoever developed the specific gravity scale—some Englishman, no doubt—assigned water a specific gravity of...
1.00. Materials with a specific gravity of less than 1.00 are lighter than water, and will float. Materials having a specific gravity in excess of 1.00 are heavier than water, and will sink theoretically, at least.

The actual blend of polymers used to produce “nylon” varies somewhat, but the nylon formulations used to make monofilament leaders and tippets generally have a specific gravity in the range of 1.05 to 1.10, making them just slightly heavier than water. To put those numbers in perspective, tungsten—used in high-density sink tips—has a specific gravity of 19.25.

Being slightly heavier than water does not mean that nylon monofilament is going to sink, at least not quickly or very well. Surface tension—where the water’s surface behaves like an elastic film—must be broken before an object will sink. A object’s density and contact angle with the water’s surface are the two most significant variables in its ability to break surface tension and sink, and the “just slightly heavier than water” specific gravity and zero contact angle (i.e., laid out flat) of a nylon monofilament leader or tippet are not sufficient to do it most of the time. If pushed or pulled under the surface by a weighted fly or roiling current, nylon monofilament will sink . . . but very, very slowly.

Fluorocarbon has a specific gravity in the range of 1.75 to 1.90. Tungsten ain’t, but it is significantly more dense than nylon. But is it sufficiently dense to quickly and reliably break surface tension and sink all by itself, even at zero contact angles, and even in the smallest diameters? No, it’s not. Our testing reveals that most brands of fluorocarbon tippet material in 0X to 8X diameters are no better than nylon at breaking surface tension and sinking on their own. Larger diameter fluorocarbon materials do demonstrate a slightly better ability to break surface tension without the assistance of current or other external influences, but for practical fishing purposes fluorocarbon has little benefit over nylon on this measure.

**Water Absorption**

Nylon monofilament is a lot like spaghetti—it absorbs water in copious quantities. Trying to pull a piece of dry spaghetti apart end to end is tough, but as soon as it gets cooked (i.e., it has absorbed a bunch of water) it pulls apart with ease. That’s an extreme example, but you get the picture.

In reality, nylon monofilament will absorb up to about 10% of its weight in water. Water absorption is a mixed blessing. On the upside, nylon monofilament that has absorbed water becomes more limp and supple, and makes knot tying easier. On the downside, water-logged nylon monofilament swells, increasing its diameter, reducing its break strength by about 20% (i.e., 10-pound test becomes 8-pound), and increasing its elongation (stretch) by 25% to 30%.

Fluorocarbon monofilament, however, is basically impervious to water. Depending upon the formulation, it absorbs less than 0.05% of its weight in water, with the result that none of its physical properties change after a prolonged soaking. The diameter, break strength and elongation of wet fluorocarbon monofilament remain essentially the same as dry fluorocarbon—but so does its stiffness, resulting in no appreciable reduction in line-coil memory after prolonged use. If you can live with more pronounced memory, fluorocarbon gets the nod here.

**Ultraviolet Degradation**

Nylon monofilament is particularly susceptible to ultraviolet radiation. The same component of sunlight that causes sunburns, UV radiation quickly degrades nylon— principally through oxidation—resulting in significant loss of strength over time. How much time? As Hamlet would put it, “Ay, there’s the rub.”

Tests show that nylon’s loss in strength can be as great as 20% of its original strength in the first 100 hours of exposure to UV radiation, with an additional 20% loss in strength over the next 100 hours of exposure. Fluorocarbon, on the other hand, is completely unaffected by UV exposure. And since it’s impervious to water as well, there’s no chance of compounding the problem with additional degradation due to water absorption.

The 100 hours of daylight fishing it would take to degrade the strength of your nylon monofilament leader or tippet by 20% translates into 12.5 full 8-hour days on the water. The vast majority of tippets don’t last a fraction of that time, and tapered leaders with progressively higher break strengths as they are trimmed back are of much less concern, so what’s the big deal with UV degradation?

Probably not all that much for most anglers most of the time, but consider this. When you combine a significant loss in strength due to UV degradation with a 20% additional loss of strength due to water absorption, the risk of losing a good fish becomes a real possibility unless you regularly replace old (i.e., UV-exposed) and/or waterlogged nylon monofilament tippets and leaders.

**Wet Knot Strength**

The only knots that really matter for anglers are the wet ones, and nylon monofilament has a slight edge over fluorocarbon on this measure. Tests with a surgeons knot, lubricated before cinching, and then immersed in freshwater for 20 minutes, demonstrate that nylon monofilament breaks at the knot at an average of about 80% of its rated break strength. Fluorocarbon isn’t far behind at an average of about 75% of rated break strength. These numbers will vary somewhat by diameter and brand of material.

While the difference between nylon and fluorocarbon wet-knot break strength may be statistically significant, the “real world” difference is minimal at best. In fact, for most anglers the wet break strength of their knots is more a function of the quality of the knot than the material with which it is tied. Because fluorocarbon is harder than nylon, it is especially important to ensure that fluorocarbon knots are tightly cinched and fully seated.

**Stretch**

We won’t bore you with the science of elasticity and plasticity, but the bottom line here is that dry nylon and dry
fluorocarbon monofilaments both stretch under load, and the amount of stretch they exhibit is roughly equal. But that’s where the similarities end.

Nylon monofilament is more elastic than fluorocarbon, and as a result it is better able to recover from stretch when the load is removed. For example, a 10-foot length of a particular brand and diameter of nylon monofilament may stretch to a length of 11 feet (10% elongation) under a given load, but when that load is removed it recovers to a length of 10.2 feet, meaning that its permanent elongation, as a percentage of original length, is only 2%.

Being less elastic that nylon, a similar length and diameter of fluorocarbon monofilament may stretch to the same 11-foot length when subjected to the same load, but when the load is removed it only recovers to a length of 10.8 feet, so its permanent elongation is 8%. In essence, fluorocarbon monofilament stretches to nearly the full extent of its permanent elongation upon the first loading, whereas nylon stretches and recovers repeatedly as loads are applied and removed. The relative elasticity of nylon over fluorocarbon may be seen as a benefit in some situations, as it can act as a shock absorber that dissipates the energy of a hook set.

In the examples above the materials were dry, but what happens after they have been thoroughly soaked? The nylon monofilament absorbs up to 10% of its dry weight in water, whereas the fluorocarbon monofilament absorbs almost no water. As a result, the elasticity and plasticity of the fluorocarbon monofilament is essentially unchanged, whereas the nylon material now exhibits even more elongation—both temporary and permanent—when wet than it did when dry. Is this a bad thing? Well, it can be, as the now permanently stretched section of nylon monofilament is significantly smaller in diameter. Put another way, your 6-pound nylon tippet just became a 4-pound tippet, never to become a 6-pound tippet again. Just one more reason to regularly replace used nylon tippets and leaders.

**Abrasion Resistance**

The surface of fluorocarbon monofilament is harder than that of nylon, making it substantially more resistant to abrasion. For our money, the greatly increased abrasion resistance of fluorocarbon monofilament is its single most valuable attribute. In years of fishing for fresh- and saltwater species all over the world, we’ve seen countless examples of the abuse that fluorocarbon leaders and tippets can stand up to—jagged rocks, coral heads, sharp gill plates, and lots of teeth. On this measure, the theoretical and the practical come together, and fluorocarbon is the standout winner.

**Refractive Index**

The refractive index of a material is a measure of how much the speed of light is reduced as it passes through the material. Water has a refractive index of 1.33, meaning that in water light travels about 75% of the speed it does in a vacuum. The average refractive index of nylon monofilaments is about 1.58, meaning that when passing through nylon light travels at about 63% of the speed it does in a vacuum. Fluorocarbon has a refractive index of 1.42, meaning that when passing through fluorocarbon light travels at about 70% of the speed it does in a vacuum. Since the refractive index of fluorocarbon is closer to that of water than is the refractive index of nylon, fluorocarbon is theoretically the less visible material when immersed in water. That’s the science, and we hope it does more for you than it does for us.

We’ve tried for years to come up with a practical test of the comparative visibility of fluorocarbon and nylon monofilaments in water, without any demonstrable success. We’ve immersed fluorocarbon and nylon tippet materials of similar diameters side by side in water—in water glasses, sinks, aquariums and saltwater shallows—in depths from a couple of inches to over a foot. We’ve even tried photographing them under water, but we’ll be damned if we can see a difference. Both materials appear equally visible against a wide range of backgrounds.

That being said, the only view that counts is the fish-eye view, and in many years of using both nylon and fluorocarbon leaders and tippets in every conceivable fishing situation it is our subjective impression that fluorocarbon produces more hook ups than nylon. That conclusion is based on nothing but observation (albeit, thousands of them) any is completely lacking in any empirical data. Nonetheless, fluorocarbon appears to be less visible to fish, and for that reason alone it’s worth using, at least under certain conditions—like on the flats—where any degree of added stealth is a clear benefit.

**Relative Break Strength**

This one is going to require a bit of explanation to make the point. Because there is no industry standard on how the break strength of monofilament tippet material is rated, manufacturers express these values in a couple of different ways: “rated” break strength and “average” break strength. Both methods undoubtedly involve testing on the part of the manufacturers, but since none of them distinguish between “wet” and “dry” break strengths we assume that all such testing is performed using dry materials.

It’s pretty clear that for any given diameter—and regardless of which rating system is used—dry nylon has a significantly higher break strength than dry fluorocarbon. How much higher? In the case of Climax products (listed as “rated” break strength), the average difference is 13%; for Scientific Anglers products (using “average” break strength), it’s 9%. Across both brands and rating systems, the average difference is 11%. Sounds fairly conclusive, huh?

Not really. If you use this stuff for fishing like we do, it’s going to get wet. And what happens to nylon monofilament when it gets wet? That’s right, it absorbs water . . . lots of water . . . to the tune of 10% of its dry weight, in the process losing up to 20% of its dry break strength. As we’ve learned, fluorocarbon is essentially impervious to water—absorbing less than 0.05% of its dry weight—with zero effect on its dry break strength. After a half hour or so of fishing, nylon’s break-strength advantage has been negated by water
absorption, and as immersion time increases, fluorocarbon quickly becomes the front runner.

**What About Bioline?**

This part of the article was excluded as it appears that Bioline is no longer sold.

**The Bottom Line**

Until the jury returns its verdict on Bioline, we’re left with choosing between nylon and fluorocarbon monofilaments for our leaders and tippets. On most measures, the performance characteristics of both materials are close enough to make a “one-or-the-other” decision equivocal at best.

Both materials are environmental time bombs, and the fact that nylon biodegrades 3,400 years sooner than fluorocarbon does little to forgive its 600-year environmental “shelf life.”

As I tell my wife on a nearly weekly basis, “Any dumb #??@% can spend money,” and considering that nylon monofilament leaders and tippets are priced at roughly half the cost of their fluorocarbon counterparts, nylon is the clear value leader.

Less clear are the relative performance advantages of the two materials. Nylon gets the nod on wet knot strength, but not by much, and demonstrates no clear advantages over fluorocarbon on any other measure. Neither of them sink very well on their own, and both materials stretch to about the same extent (although in different ways). Nylon has a higher dry break strength, but after a thorough soaking it cedes that advantage to fluorocarbon. Even though we “feel” that our hook-up rates are higher with fluorocarbon, both materials appear equally visible under water. So what’s left?

The three “biggies” for us are water absorption, UV degradation and abrasion resistance, and fluorocarbon holds the high ground on all three measures by a wide margin. Water absorption results in nothing but negative consequences, and fluorocarbon’s zero water absorption avoids them all. Ditto with UV degradation. But our biggest “biggie” is fluorocarbon’s greatly increased resistance to abrasion.

So which material do we use for our leaders and tippets? We use both. For any “mission critical” application where fish absolutely have to be landed for photography, we use fluorocarbon leaders and tippets exclusively—the cost be damned. To do anything else would be a “penny wise and pound foolish” proposition. For general dubbing around on our local trout fisheries, we use nylon with greater frequency.

What it really comes down to is cost-benefit analysis. When you’ve just dropped five grand on a flats-fishing trip to the Yucatan, screw the cost and bring plenty of fluorocarbon. When you’re just out for an evening of throwing dry flies at stocked trout, save a buck or two and go with nylon. After all, any dumb #??@% can spend money.

**TYING YOUR OWN LEADER**

I fish almost entirely with nymphs here in NC. For nymph fishing fluorocarbon is recommended for many reasons. (If you did not read the comparison of Nylon to Fluorocarbon last month, I recommend that you do before you read this article.) The primary reasons are that it sinks faster than nylon and it is less visible in water. But it is also very expensive. A 9” tapered leader can cost you as much as $12 and if you tie flies like me, the leaders are probably your biggest annual cost. For that reason I began tying my own a few months ago. I didn’t really research it, I just started tying a 5’ 0X fluoro piece of tippet to the fly line and then attaching a 4’ piece of 3x to 5x piece of fluoro tippet to that with a surgeons knot. It worked fairly well for me and only cost about $1.40. But then a couple months ago I decided I should investigate a little further and became mired in one of the most complicated fly fishing issues I have tackled.

When you think about it, why do we even use tapered leaders? Why not just put a straight piece of leader between the fly line and the fly? There is a double reason for this. The casting process requires you to generate power through the rod and into the fly line that carries through the leader and eventually to the fly to create a full extension of the line to the point where you want the fly to land. If the leader is too small a diameter it won’t be able to carry that power out to the fly. The other issue is that if the leader is a large enough diameter to carry the power to the fly, it will be too large to get it through the eye of the hook. Thus we need to start with the large diameter and end with a small diameter and thus a tapered leader. The process of tying your own tapered leaders to save money has been around for many years and perhaps even started earlier when tapered leaders were not available. There are formulas for tying these leaders and if you explore the internet, you will find hundreds of them. Let me preface this article by saying I have not spent enough time to refute these formulas, but I have fished enough to dispute some of the basic ideas.

A typical formula for a 9 ft 4x leader might look like the line in this drawing. I’m sure that the people who developed formulas like this did some thorough research and were not just trying to sell you a whole bunch of line spools, but over the years I have found that if there is a knot in my leader, I’m going to get a tangle, and note that this formula has seven blood knots between the fly line and the fly and each blood knot has two tag ends to catch on. And have you ever tried to tie a blood knot? More on that later.

So based on my relatively good experience with my two piece 0X/3-5X leader, I decided to try using a three piece

Bill Battles is FFA’s executive publisher, and has been known to swear when he breaks off a fish. Real-world testing has shown that he swears less when using fluorocarbon.
leader and then tying on the tippet I’d be using for the fly. One thing I discovered in reading through a myriad of material is that each piece should be approximately 2/3 of the diameter of the previous piece. The section that connects to the fly line is called the butt section and should be about 2/3 of the diameter of the fly line. (See the table at the end of this article) Most of us fish 5 wt rods and matching fly line. A 5 wt line is approximately .040” diameter and 2/3 of that is approximately .026”. The closest mono line to that size is 30# line at .024” diameter. The next piece would be 2/3x.024” or .016” diameter or a 20# line which is .015” diameter and the third piece 2/3x.015” or .010” diameter. Here you could use 10# spooled or 1X tippet which are both .010” diameter. I tried this and felt the 30# line seemed a bit stiff so started with 20# line. Using the 2/3 rule, that gave me a leader of 20#, 10#, and 5#. Again, based on a lot of reading, I settled on lengths of the butt section of 4” and each of the other sections 2’. Add to that 2’ of your final tippet and you have a 10’ rig.

The initial knot at the butt end should be a perfection loop shown at right. The additional knots can be tied with a surgeons loop, but are better tied with a blood knot. A surgeons knot will tie the two pieces together at a slight angle, however, the blood knot will create a straight line between the pieces. If you have never tied a blood knot before, you’re going to find this one of the most difficult knots you’ve ever tied. When I started I was able to do it by hand with great difficulty, but not every time. If you will be tying your own leaders now, it is best to invest in a tying tool. I purchased the Dennison blood knot tool and it has been worth all of the $12 it cost me. You can see how this works by visiting How to Tie a Blood Knot. I’ve often read articles that tell you to leave a bit of tag end on your knots to help keep them from coming untied. I say absolutely not with blood knots in your leaders. (See Knot Sense article below) I have found that the slightest tag causes snags and remember you have two tags in each knot. Trim them as close as you can.

Once you have tied up the leader, you need to attach your tippet to it. It is recommended that you tie on a tippet ring at the end of your leader. This seems silly to put a piece of metal in the line if you are dry fly fishing, but the rings are so small and light that they float on the surface tension of the water. If you tie your tippet directly to the leader, each time you replace it you will be shortening the leader and will have to replace it as it gets too short. By using a tippet ring, you only have to snap off the tippet at the ring and add new tippet without affecting the leader. Also, when you get your fly snagged, it will generally snap at the tippet ring and you will not lose your whole rig. In my trials I found this to be a great asset. I have found two issues with tying tippet rings. The first is when tying it to the leader, do not take it off the gizmo they come on. This may be a safety pin, swivel, or something else. These are so small that once you take it off you are likely to drop it and it will be gone forever. Tie it to the next ring to come off the spool and then remove it. The second issue I have had with tippet rings is that they have a highly polished surface and my tippet knots slip out. I’ve found if you pass the line through twice before tying the knot it holds much better.

Should you tie the line with nylon or fluorocarbon? Logic would tell you that if you are dry fly fishing you would tie your leader and tippet as nylon which floats better and tie your nymph leaders with fluorocarbon which sinks better. The article in the last newsletter comparing the two materials tells you that’s not quite as true as it would seem. Here is my logic. Tie the butt section with nylon. Since nylon has a better tendency to float, it is less likely to pull your fly line underwater and since it is a distance from your fly it is not likely to spook the fish. Beyond that point I would suggest nylon for dry flies and fluorocarbon for nymphs. But…. I recently learned from a friend that if you lay nylon and fluoro on the water the nylon will cast a shadow while the fluoro does not. That tells me that it is likely that the fish will see the nylon line. I tested my tied leader using fluorocarbon tippet for dry fly fishing and found that it did not sink my fly. You may want to give this a try. Also see the grease your tippet article below.

So how much can you save by tying your own leaders? As stated above, the 9’ tapered fluorocarbon leaders cost $12 each and the tapered nylon cost $4. If you use spooled nylon to build your leaders, it is about a penny a foot, fluoro about eight cents per foot. If you use spooled tippet for your fluorocarbon it costs about fifteen cents on the 30M spool, but you can buy a 100M spool that is only about twelve cents per foot. That means you can build a 9’ all nylon leader for about $0.09 versus $4 and a fluoro for as little as $0.72 versus $12. If you use a half dozen leaders a year that’s a big savings.

If all of this seems like a lot of work, here is another suggestion. If you fish mainly smaller trout, buy a 9’ 5X leader and trim off a couple feet of it. That will get you back to a more substantial strength. Tie on a tippet ring and then tie on your tippet. This should give you a much longer life with your leaders and save you a substantial amount.

To sum it all up, Here is what I have recommended for rod weights from 3 through 6:

For a 9’ leader equivalent: 4’ of 20# nylon, 2’ of 10#, 2’ of 5#, tippet ring, your choice of tippet

For a 7.5’ leader equivalent: 3.5’ of 20# nylon, 1.5’ of 10#, 1.5’ of 5#, tippet ring, your choice of tippet (the second and third pieces can be nylon or fluorocarbon depending on the type of fishing.)

As I mentioned early in this article, this is all quite new to me and I’ve still got some experimentation to do to confirm.
to myself this is the ideal combination. I’d love to hear from others of you have been tying your own leaders or who begin with using this article as a plan. Below are some charts that will help you to do some of your own tinkering with line sizes. Remember these diameters are approximate and can vary by company and line style.

KNOT SENSE

I tie a lot of flies, but had never used UV glue so I decided to give it a try. As I was looking at what to buy, I discovered a product called "Loon UV Knot Sense". I started tying my own leaders and find it difficult to get my blood knots as tight as I would like and have had them occasionally pull apart, so I ordered some of this glue. I tried it and was really impressed. Not only does it seal the knots, but smooths the line at the knot so it will move through the guides better. It also allowed me to trim my tags very close without concern of it allowing the knot to pull apart. The tags have caused more than a few snags and resulting tangles when casting. It's simple to use as shown in this video and as long as you clean it off your fingers before the UV set, it wipes right off.

Knot Sense Video

2 SCENARIOS FOR GREASING YOUR LEADER

SEPTMBER 11, 2022 / BY KENT KLEWEIN

SOMETIMES A LITTLE GREASE GOES A LONG WAY

1. Fishing with Tiny Dry Flies

Many anglers out there shy away from fishing tiny dry flies because they find it difficult to see them and keep them floating during their drifts. Greasing the length of your leader with fly floatant can help your tiny dries float longer and make them easier to see on the water. A good scenario for this would be if you’re fishing a CDC pattern where you don’t apply floatant directly to the fly pattern. By greasing your leader you’ll increase the floatation of your pattern and it will stay afloat longer in more turbulent water.

2. Drifting Nymphs & Emergers in the Film

If you find the standard dry fly dropper rig is failing to get the attention of feeding fish during a hatch, try instead tying on a single emerged nymph pattern that imitates the aquatic insects hatching. Then grease your leader from the butt section to within 6″ of your fly. This will allow your fly to drift in or slightly below the surface film where a biggest percentage of the hatching naturals will be found struggling to break through the surface tension. Complete each drift by letting your fly swing and rise to the surface to match the behavior of the emerging bugs.

Keep it Reel,

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ASK A PRO: HOW LONG DOES TIPPET MATERIAL LAST

Author: Phil Monahan

Here’s a question I’ve been asked several times, and I haven’t had a good answer until now. Former Orvis Product Developer Tim Daughton explains the variables involved:

"This is a difficult question to answer, as there are so many variables aside from time to consider—UV exposure, temperature, humidity, chemicals (DEET, sunscreen), etc. The one factor that many people fail to consider is heat, especially the kind that is generated in a car trunk or on the deck of a boat in midsummer. These extreme temperatures can, over time, break down the material quickly, even though it is not exposed to UV.

You should store excess leaders and tippet in the house—not your vest—preferably in a cool place; some people even keep them in the freezer. Your vest/pack is actually the worst place to store leader and tippet. Take what you need to fish that day or on that trip, and leave everything else at home.

In general, fluorocarbon is going to last longer than nylon, because fluorocarbon is impervious to UV; it can, however, get milky with prolonged exposure, which makes it more visible to the fish. As a rule of thumb, I would replace material every two years unless it shows signs of degradation—then I would chuck it immediately."
So now you know... and you have a good response ready when your significant other asks why your fishing gear is stored next to the tater tots.

**YOU SHOULD BE USING A TIPPET RING**

![Diagram of a tippet ring](image)

I first read about and started using them a couple years ago, but I have become an advocate. The advantage is that you tie your tippet to the ring rather than directly to the leader. If you tie directly to the leader, each time you replace the tippet you lose a little more leader and you can use up that leader rather quickly. Manufactured leaders are not inexpensive, especially if you are using fluorocarbon which can cost north of $10 each. By using a tippet ring you can make that leader last a year or more.

And heaven forbid you snag your fly into a tree (I know you’re an excellent caster and never do that, right?). If it is out of reach and you have to tug it loose, the break will normally be on the tippet side of the ring and you will not lose your leader. Since I fish in a lot of tight streams, I have a lot of first hand experience with this and have only lost the leader a few times when it was badly tangled above the tippet ring.

In many cases when you buy tippet rings they will come on a wire holder of some type. If they come loose, be sure to get something like a safety pin and put them on it. Do not take them off before you attach them to your leader!!! You don’t need to complete the knot while it is on the holder, but at least run the leader through it. These tiny rings are very easy to drop and when they do, it’s likely you’ll never find it. You tie it to your leader and to the tippet using a clinch knot. It is suggested that you use an improved clinch knot on the leader side and standard clinch on the tippet side. The improved clinch knot is a little stronger so that when you are snagged is more likely to break on the tippet side of the ring.

Do you often switch from nymph to dry fly? It’s not a problem as the tippet ring is small and light enough it will float with your line on the surface of the water.

An additional use of the ring is to tie your fly and dropper both to the tippet ring, but that’s another article. Give the tippet ring a try. I think you’ll like it and it may save you a great deal of money by reducing the number of leaders you use up in a year.

*My go to rig has become an inexpensive 3X tapered nylon leader, the tippet ring, and then 2-3’ of either nylon or fluoro depending on whether I am fishing dry or wet. I have found the nylon leader works for either wet or dry in combination with the proper type of tippet. You’ll find in another article here that there is a big debate on the added cost of fluoro.*

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**ADVICE FROM THE VISE**

Welcome to fall, or at least its finally starting to feel that way. There are still plenty of bugs on the water, so the fall dry game is in full swing. This month we still have some terrestrials out there and the small black caddies are starting to hatch so I love to pull out an old fly that does double duty for me this time of the year, the LeTort Cricket.

This fly was the creation of Ed Shenk, a Pennsylvania fly fishing icon and a guy that could be occasionally found at the old Yellow Breeches Fly shop when I was just a kid. For this version, I am leaving off the turkey tail wing case to give it that caddis profile.

For the hook, I’m using a TMC2312, it has a long enough shank with just enough of a hump to let it ride lower in the back end-increasing (hopefully) the hook up percentage. I am using Veevus 50D GSP thread- and if you are not using GSP for any hair patterns, I’d recommend giving it a try. It’s crazy strong for really cinching those wraps to flare hair down. I also use a retired pair of scissors especially for this thread as it’s pretty rough on your best pair of razors. Because GSP is very slick, I hit it with the wax to give it some tack to get it wrapping without slipping.

Some black dry fly dubbing of your choice and dyed black elk hair rounds things out for the recipe.

This is a pretty straight forward tie and gives you some opportunity to work on your deer hair game. Dress the hook from the eye to the bend and build the dubbing body up to about 2/3’s of the way. Take some snug wraps on the end of the dubbing and use a touch of wax to build a bench for the initial hair wraps to rest on.

Next, take a clump of hair and stack it so that the tips are aligned. Align the clump so that the tips are just a tad behind the bend and hold the pinch. Tie that in with two light wraps then snug that tight to flare the hair.
Take a couple more tight wraps, and push the butt ends away from the eye toward the tie in point. Trim all these butt ends down just so you can get them out of your way for the next stack.

Cut another clump of hair, but don’t worry about stacking it. This one will spin as we tie it in to form the head.

Push that hair back from the eye, and whip finish the fly.

Now, we trim the head. I start off with getting everything uniform before shaping it, as shown below.

Sharp scissors are a must at this point, some tyer’s prefer a razor blade to trim hair, it’s up to you as to what works for you best. I’m ok with a little rustic look, so for these, I use scissors. Trim the hair fibers so that there is definition between the head and the wing and the head is nicely compact. These things float really well with a bit of a big head, and again, that leaves that hook point just under the film for the eat.

Pretty uncomplicated tie as hair wings go. I have a 2 weight I toss these on in a size #16 for even more fun.

As always, I’m honored to answer questions, give a lesson, or just talk fly tying and fishing. Don’t hesitate to contact me at jacobsforkflytying@gmail.com or check out some of my current ties on Facebook and Instagram at Jacobs Fork Fly Tying.

SEPTEMBER MEETING INFO

At the September chapter meeting, Professional fly tyer Dave Everhart demonstrated the materials of and how to tie several flies. These ties can be purchased at Etsy https://www.etsy.com/shop/JacobsForkFlyTying. The flies demonstrated were:

- Soft hackle Pheasant Tail - winter fly
- Euro-nymph / Perdigon
- Foam Ant - these are popular and fish extremely well
- Super Simple BWO
- Realistic Stonefly using new materials

Images of these flies are available on the website referenced above.

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